

DEHUMIDIFYING METHOD

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Abstract of JP60114325

PURPOSE: To obtain a dehumidifying method which does not require regeneration irrespectively of atmosphere moisture by electrolyzing the water supplied to an ion exchange membrane by using a hydroelectrolysis device in which a solid electrolyte is used as the exchange membrane. **CONSTITUTION:** A catalyst electrode as a cathode consisting of a mixture composed of platinum black powder and polytetrafluoroethylene is joined to one surface of an ion exchange membrane 1 formed by incorporating a sulfonate group into perfluorocarbon and a catalyst electrode 3 as an anode consisting of a mixture composed of iridium oxide powder and polytetrafluoroethylene is joined on the other surface. An atmosphere gas is supplied by a pump 11 to the atmosphere gas chamber 7 in the space of an anode current collector 5. A DC voltage is impressed between terminal plates 8 and 9. The steam in the atmosphere gas is absorbed through the pores of the porous electrode 3 into an ion exchange membrane 1 by which the steam is electrolyzed. H₂ is then generated from the electrode 2 and O₂ from the electrode 3. H₂ is conducted into a hydroge-oxygen combining chamber 12 where H₂ is returned to water by a Pd catalyst. The water is taken out of said chamber. O₂ is discharged through an oxygen leading- out port 13 and the atmosphere air is dehumidified.

